carotid artery intima-media thickness (CCA-IMT) and the ankle-brachial index (ABI) were separately associated with outcome after vascular surgery. Aim of the study was to evaluate if these risk markers have an added predictive value even on top of the RCR index.

Methods: A total of 647 patients with hs-CRP, CCA-IMT and ABI assessment prior to surgery were included. The primary endpoint was a composite of cardiac death and non-fatal myocardial infarction.

Results: Based on multivariate hazard ratios (HRs), a baseline hs-CRP>6.5 mg/l was not predictive of a 30-day cardiac event, in contrast with a CCA-IMT≥1.25mm and an ABI<0.91. However, all three risk markers had a significant association with long-term adverse outcome (Table).

Hazard ratios (HR) and odds ratios (OR) for cardiac events after vascular surgery

30-day events	*HR*	*95% CI*	*p-value*	*Cumulative* X2
Revised cardiac risk index	1.65	1.39-1.95	<0.001	98.9
hs-CRP >6.5mg/l	1.10	0.82-1.49	0.521	99.3
CCA-IMT >1.25	1.44	1.07-1.94	0.016	105.1
ABI <0.90	2.05	1.53-2.74	<0.001	125.2
Long-term events	*OR*	*95% CI*	*p-value*	*Cumulative* X2
Revised cardiac risk index	1.69	1.45-1.98	<0.001	152.4
hs-CRP >6.5mg/l	1.53	1.17-2.00	0.002	163.8
CCA-IMT >1.25	2.40	1.84-3.12	<0.001	176.5
ABI <0.90	2.21	1.69-2.89	<0.001	209.6

Multivariate analysis corrected for gender, age, hypertension, hypercholesterolemia, smoking and chronic obstructive pulmonary disease.

Conclusions: The current results show that combining risk markers with risk factors as embedded in cardiac risk indices can improve perioperative and long-term risk prediction in vascular surgery patients. These additions to risk prediction models should be investigated in other populations.

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PS102.

Mid-Term Results of Atherectomy for Lower Extremity Arterial Occlusive Disease

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Objectives: To determine the viability, safety, and efficacy of various forms of atherectomy devices over a 5 year period in the treatment of lower extremity arterial occlusive disease. In addition, to determine if EPD use confers any benefit with regards to distal embolization during the atherectomy procedure.

Methods: Retrospective review of 150 limbs in 148 patients treated with atherectomy at a single institution over a 5 year period. The atherectomy devices included laser, rotational, and orbital atherectomy. Patient characteristics, type of device used, success of delivery of atherectomy device to target lesion, reconstruction techniques, rate and type of complications, and subsequent procedures were all examined. The use of EPD's in atherectomy procedures were also examined with regard to the rate of distal embolization.

Results: Median age of patients was 64.80% were male. Successful delivery of atherectomy device to target lesion was 93.3% (n=140). The limb level of atherectomy intervention was the superficial femoral artery in 60.7% (n=91). Median length of vessel treated was 12 cm. Majority of reconstruction following atherectomy was balloon angioplasty alone in 63.3% (n=95). Reconstruction success was 86.7% Vessel rupture or extravasation was seen in 13.3%. 78% of limbs did not require any further intervention. Rate of major amputation after atherectomy was 9.3%. 26.7% of limbs (n=40) received an EPD prior to atherectomy, while 73.3% (n=110) did not. The rate of distal embolization was 12.5% in the EPD group and 15.5% in the non-EPD group (p=0.65, NS).

Conclusions: Atherectomy is a safe, viable, and effective method of intervention for lower extremity arterial occlusive disease. The majority of patients required angioplasty alone as reconstruction after atherectomy. Subsequent rates of futher intervention or amputations were low. In the embolic protection substudy, there was no significant difference in the rate of distal embolization between patients treated with or without an EPD.

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PS104.

Preoperative DNR Status Impacts Perioperative Mortality for Lower Extremity Revascularization and Major Amputation

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Objectives: To identify the impact of lower extremity revascularization or amputation on 30-day mortality in patients with preoperative do not resuscitate orders documented.

Methods: Patients were identified from the 2005-2008 ACS NSQIP datafile using CPT codes. Group-wise comparisons based on DNR status were performed using t-tests and X2. Associations between preoperative DNR status, operative management (categorically evaluated as revascularization versus amputation), and mortality were evaluated using logistic regression.

Results: 15,541 operations were identified, of which 9417 were revascularizations and 6,124 were major amputations. 526 patients were DNR (1.1% of revascularizations; 6.8% of amputations. DNR patients were older and had a greater prevalence of preoperative comorbid conditions and abnormal laboratory data. Perioperative mortality was 22.2% for DNR versus 5% for non-DNR patients [univariate OR (95% CI) for DNR status: 5.4 (4.4-6.6); $P<0.0001$]. Multivariable modeling adjusting for preoperative differences in demographic, comorbidity, and laboratory data revealed an interaction between DNR status and procedural management ($P=0.0013$). DNR status was associated with increased mortality risk following both revascularization [Estimated(OR)(95% CI):4.9 (2.9-8.3)] and amputation [Estimated (OR)(95% CI):1.9 (1.4-2.5)].

Conclusions: DNR patients are at increased risk for perioperative mortality following both lower extremity amputation and revascularization, and this association between DNR status and mortality persists after adjusting for differences in other risk factors. The differential effect on mortality risk based on procedural management implies greater risk for DNR patients undergoing revascularization, but may reflect the influence of DNR status on procedure selection given greater prevalence of DNR status among these patients. DNR status should be considered during preoperative risk assessment and may inform preoperative counseling and decision making.

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PS106.

Transplantation of Purified CD34+ Cells from Peripheral Blood in Treatment of No-option Critical Limb Ischemia: A Pilot Study

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Objectives: To evaluate the safety and efficacy of transplantation of purified peripheral blood CD34+ cells in treatment of no-option critical limb ischemia (NOCLI).

Methods: From May 2009 to Nov. 2010, 15 NOCLI cases were included, 11 with thromboangitis, 2 atherosclerosis obliterans, and 2 vasculitis, mean age 44 ± 15years. G-CSF was subcutaneously injected for 5 days before apheresis. CD34+ cells were isolated with CliniMACS system, and then intramuscularly injected into calf and foot.

Results: Technical success was achieved in all cases. Major amputation was performed in 2 cases postoperatively, and the salvage rate was 87%. The mean number of transplanted cells was $(7.84\pm4.17)\times10^5$/kg. The follow-up was accomplished in all cases, ranging from 1-19 months (mean 8 ± 5months). One month after transplantation, the rest pain was obviously relieved in 11 cases, and the Wong-Baker FACES pain rating scale score significantly decreased from 7 ± 2 to 1 ± 1, $P=0.0000$. At 6 months, the pain-free walking distance on treadmill measured in 8 eligible cases was significantly improved from 3.0 ± 3.0 min to 17.9 ± 10.6 min ($P=0.001$); the ankle-brachial index increased from 0.45 ± 0.22 to 0.69 ± 0.13 ($P=0.007$); transcutaneous partial oxygen pressure rose from 29 ± 12mmHg to 57 ± 9mmHg ($P=0.0002$). Of 9 cases with the foot ulcer, it was healed in 6 patients at 4 ± 3months and apparently shrank in 3. No serious complications were observed either perioperatively or during the follow-up.

Conclusions: Transplantation of purified peripheral blood CD34+ cells appeared to be safe and effective in treatment of NOCLI, and mid-to-long-term results is pending further investigation.

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PS108.

A Meta-Anlysis of the Outcomes of 8,550 Patients Comparing Open surgical and Endovascular Treatment for Aorto-Iliac Occlusive Disease

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Objectives: Treatment options for aorto-ilac occlusive disease (AIOD) include open and endovascular treatment. We performed a meta-analysis of studies reporting the treatment outcomes for AIOD.